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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,580	04/13/2001	Albert Hasper	NEDER24.001A	2074
20995	7590	11/21/2005	EXAMINER	
KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614			FOX, CHARLES A	
			ART UNIT	PAPER NUMBER
			3652	

DATE MAILED: 11/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/807,580

Applicant(s)

HASPER ET AL.

Examiner

Charles A. Fox

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8,9 and 11-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8,9,11-15 and 17 is/are rejected.
- 7) ☒ Claim(s) 16 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8,9 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muka in view of Prentakis. Regarding claims 8 and 9 Muka US 6,079,927 teaches a device for sorting wafers comprising:

a housing;

a wafer handling device arranged in a chamber;

a part for receiving at least two wafer cassettes in said housing, and separated from said chamber;

said cassettes positioned against said housing such that they can be opened to said chamber for removal or insertion of wafers therein;

a store for closable cassettes within the housing;

a handling device for handling closable cassettes within the housing;

a process station attached to said housing and accessible by said wafer transfer device;

wherein the wafer handling device is capable of transferring the wafers between cassettes in a sorting function. Muka does not teach the wafer transfer device as accessing a measurement device. Prentakis US 4,775,281 teaches a wafer process system comprising :

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a wafer transfer device (32,34) located in a transfer chamber;  
a process chamber (56) attached and sealable relative the transfer chamber;  
a laser detector for measuring the angular position of a wafer;  
said laser detector taking a measurement directly on said wafer;  
wherein said transfer device removes a wafer from a first cassette (40) and returns it to any location in said first cassette or a second cassette (38) depending on operational needs of the system.

It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Muka with a measurement device as taught by Prentakis in order to align the wafers properly prior to processing, thereby increasing the yield of usable wafers.

Regarding claims 13-15 Muka teaches a method of assembling a batch of wafers in a cassette comprising the steps of:

placing at least a first and a second cassette in a store;  
employing a cassette handling device to select and move a first cassette from the store to a sorting operation, wherein the first cassette is opened and placed in active connection with a wafer handling device within the chamber;  
employing a cassette handling device to select and move a second cassette from the store to a sorting operation, wherein the second cassette is opened and placed in active connection with a wafer handling device within the chamber;  
processing said wafers from said cassettes in a process chamber;

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employing a wafer handling device to sort wafers between the first and second cassettes;

sealing said cassettes after the sorting step. Muka does not teach placing the wafers in a measuring station. Prentakis teaches a method of processing wafers comprising the steps:

providing a wafer transfer device (32,34) located in a transfer chamber;

using said transfer device to move wafers between a first and a second cassette and a measuring station and a process station;

providing a laser detector for measuring the angular position of a wafer;

taking a measurement directly on said wafer;

sorting wafers using said transfer device by removing a wafer from a first cassette (40) and returning it to any location in said first cassette or a second cassette (38) depending on operational needs of the system.

It would have been obvious to one of ordinary skill in the art, at the time of invention to modify the methods taught by Muka by measuring the wafers as taught by Prentakis in order to align the wafers properly prior to processing, thereby increasing the yield of usable wafers.

Claims 11 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muka in view of Prentakis as applied to claim 8 above and further in view of Rush et al. Muka in view of Prentakis teach the limitations of claims 8 and 15 as above they do not teach the use of a turntable. Rush et al. 5,193,969 teach a wafer transfer machine that uses a turntable (12) to hold wafer carriers (24) and present the cassettes

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to a load port. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Muka in view of Prentakis al. with a turntable as taught by Rush et al. in order to allow one wafer cassette to be moved onto the turntable as another wafer cassette is being accessed by a wafer handler, thereby allowing different parts of the device to run concurrently.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muka in view of Prentakis as applied to claim 8 above and further in view of Garric et al. Muka in view of Prentakis teach the limitations of claim 8 as above they do not teach the store as being a rotatable magazine. Garric et al. teaches a store (3000) for wafer cassettes that is a rotatable magazine. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Muka in view of Prentakis with a rotatable magazine as taught by Garric et al. as the rotatable store is considered a conventional means to store wafer cassettes.

#### ***Response to Amendment***

The amendments to the claims filed on August 22, 2005 have been entered into the record.

#### ***Allowable Subject Matter***

Claims 16 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The closest prior art of Rush et al. does not teach or suggest using a turntable with vertically stacked levels that are independently rotatable relative to one another.

***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

The prior art made of record and not relied upon, but considered pertinent to applicant's disclosure is Hugues et al. 1988.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles A. Fox whose telephone number is 571-272-6923. The examiner can normally be reached on 7:00-4:00 Monday-Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen D. Lillis can be reached on 571-272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**EILEEN D. LILLIS**  
SUPERVISORY PATENT EXAMINER  
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CAF  
CAF 11/14/05